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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number: 07844-619001
	Application Number 10/716,840	Filed November 18, 2003
	First Named Inventor Matthew Marcus	
	Art Unit 2166	Examiner Usmaan Saeed

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

□ applicant/inventor.

□ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

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Registration number if acting under 37 CFR 1.34 ______________________

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May 25, 2007
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below'.

☒ Total of 1 form is submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Matthew Marcus	Art Unit	: 2166
Serial No.	: 10/716,840	Examiner	: Usmaan Saeed
Filed	: November 18, 2003	Conf. No.	: 7089
Title	: OPTIMIZATIONS OF XPATHS		

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Commissioner for Patents
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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Pursuant to the Pre-Appeal Brief Conference Pilot Program, a request for a review of identified matters on appeal is hereby submitted with the Notice of Appeal. This pre-appeal brief is filed specifically in response to legal and factual deficiencies in the final Office Action mailed March 8, 2007. Nonetheless, all rights to address additional matters on appeal in any subsequent appeal brief are hereby reserved.

I. Brief Introduction to the Technology

The application relates to techniques for searching in a hierarchical tree structure contained in an XML document conforming to a schema used for XML. Claim 1 recites in part, receiving a query for logical elements satisfying an XPath expression and searching in a hierarchical tree structure for those logical elements. However, only nodes that potentially have child nodes satisfying the XPath expression are searched, in contrast to searching the entire tree of nodes. This results in faster searches of XML documents conforming to a schema.

II. Chau Does Not Anticipate Because Chau Does Not Teach Searching Only Nodes That Potentially Have Child Nodes Satisfying an XPath Expression

Claims 1-40 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Publication No. 2002/0156772 ("Chau"). This rejection is a clear error. Chau addresses four distinct techniques related to inserting, retrieving, and searching XML documents in a relational database; these techniques primarily show how to map XML documents onto relational database tables and back. In all of these techniques, where a hierarchical tree structure in an XML document conforming to a schema is traversed, the entire tree of nodes is traversed. Chau does not teach searching only nodes that potentially have child nodes satisfying an XPath expression.

A. Chau's technique for creating metadata for searching XML documents stored as column data

The first technique in Chau involves two steps: first, placing an XML document into a relational database; and second, searching the resulting database. Chau ¶ 0203-0322 (insertion and retrieval); ¶ 0323-58 (search).

The first step, insertion of an XML document (possibly conforming to a schema and containing a hierarchical tree structure) into a relational table, involves mapping the data from the XML document onto relational tables according to a Data Access Definition (DAD) document. Chau ¶¶ 0203-06. This step necessarily involves traversing all nodes of any trees contained in that XML document, rather than only nodes that potentially have child nodes satisfying an XPath Expression. After this step, the data from the XML document is no longer in a hierarchical tree structure; it is stored in a main table, and some attributes specified by the DAD are stored in side tables ("metadata"). Chau ¶ 0211.

The second step, searching the data, involves receiving a query (possibly an Xpath expression) and searching within the table for elements satisfying the query. Chau ¶ 0211. Chau teaches several ways to perform the search, all of which involve searching in a main table using indices created on side tables. Chau ¶ 323-58 ("Search from Join View", "Direct Query on Side Tables", "Query Using UDF", "Search on an Element or Attribute with Multiple Occurrences", "Structural-text Search"). These searches are starkly different from the search described in claim 1 of the application. The search in claim 1 of the application involves directly searching a hierarchical tree structure in an XML document and searching only nodes that potentially have child nodes satisfying an Xpath expression; in contrast, the searches taught in Chau involve searching in a table and using indices in side tables to locate the requested data.

Thus neither of these steps in Chau disclose searching only nodes that potentially have child nodes satisfying an Xpath expression.

B. Chau's technique for generating XML documents from a single SQL query

The second technique in Chau involves generating XML documents from data in existing relational database tables using "SQL mapping." Chau ¶ 0615. This technique does not involve searching an XML document containing a hierarchical data tree – it only involves retrieving data from a table and creating an XML document containing that data. Therefore, this technique in Chau also does not disclose searching only nodes that potentially have child nodes satisfying an XPath expression.

C. Chau's technique for generating XML documents from a relational database using XPath

The third technique in Chau is similar to Chau's second technique but operates differently – it involves generating XML documents from data in existing relational database tables, but it uses the XPath data model. Chau ¶ 0729. Part of this technique requires creating a Document Object Model (DOM), which is an XML document containing a hierarchical tree structure. Chau ¶ 0729-30. The technique traverses the tree in the DOM to gather information, but it traverses the entire tree. It does not selectively examine only nodes that potentially contain child nodes satisfying an XPath expression. Thus, traversing all nodes in the DOM tree does not teach searching only nodes that potentially have child nodes satisfying an XPath expression.

D. Chau's technique for storing fragmented XML data into a relational database

The fourth technique in Chau is another technique for placing data from an XML document into relational database tables. Specifically, the technique stores fragmented XML data into tables by decomposing (breaking down) data using a mapping scheme outlined in a DAD. Chau ¶ 0835-38. During this process, as in the third technique, a DOM tree is created. Chau ¶ 0836. However, just as in the third technique, whenever the DOM tree is traversed, the entire tree is traversed – every node. Therefore, this technique also does not teach searching only nodes that potentially have child nodes satisfying an XPath expression.

III. Conclusion and Relief

The rejections of record are clearly improper and without basis and should be withdrawn. Moreover, it is respectfully suggested that all of the claims should be in condition for allowance, and a formal notice of allowance is respectfully requested.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: 25 May 2007

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